



## SAN BERNARDINO MICROWAVE SOCIETY, Incorporated

FOUNDED IN 1968

A NONPROFIT AMATEUR TECHNICAL ORGANIZATION DEDICATED  
TO THE ADVANCEMENT OF COMMUNICATIONS ABOVE 1000 MC.

# W6IFE Newsletter

## May 2005 Edition

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At the **5 May** meeting May- Frank and maybe Dennis on hand held 10GHz radios. Miniature 10 GHz receiver designs

Folks are to bring something to the third auction off during the meeting for the benefit of the Auxiliary Fund, which is to provide extra monies to the treasury for MUD05 expenses. Here are three categories of sales:

1. Whatever it brings, give it to the club.
2. Starting bid needs to be met or it goes back to the owner. If it goes over that, it all goes to the club.

3. Starting bid needs to be met, the club gets a percentage of the final bid.

Put a tag on the items so that I know which category they fit in.

The SBMS meets at the American Legion Hall 1024 Main Street (south of the 91 freeway) in Corona, CA at 1900 hours local time on the first Thursday of each month. Check out the SBMS web site at <http://www.ham-radio.com/sbms/>.

New 2005 officers elected at the April SBMS meeting were Chris, N9RIN President; Doug, K6JEY VP; Mel, WA6JEY secretary; Dick, K6HIJ treasurer; Kurt K6RRA corresponding secretary; Bill, WA6QYR newsletter editor.

**Words from the President**--I would like to thank last year's officers, who are also mostly this year's officers as it turns out for their good work this past year. I would like to thank Larry (K6HLH) for his support as Vice President for this past year. I would like to welcome Doug (K6JEY) as our new Vice President. I also would like to thank Bill (WA6QYR) for doing such a great job on the newsletter all year. Thanks to Kurt (K6RRA) for being our correspondence secretary. Thanks also need to go to Dick (K6HIJ) for his continuing fine efforts in keeping the books straight, especially with the addition of new accounts for the auction items and for MUD 2005, and to Mel (WA6JBD) for his work as secretary. All HAIL to Bill, Dick, Kurt and Mel. J We had the train come through again for this election; I found that I was re-elected for a second term as president. I consider it a privilege and a great deal of fun to be president of SBMS and I appreciate your confidence in me to re-elect me again. I look forward to serving all of you for the next year and hope that I can improve upon what I have done over the last year. Thank you very much, Chris n9rin

**Last meeting** Paul, WA6PY talked about his EME experiences since 1967 on 2 meter, 432, 1296 MHz, and 10 GHz EME. Thanks Paul. The auction by Square Deal Doug benefited SBMS Auxiliary fund for the MUD 2005. It was good to hear that Bob, W6SYA is doing well. Visitors included Gordy WA6KZV and George, K6MBL members from early days of SBMS. Other visitor included Mike, SP5CJT of San Diego and Bill Heather, KB6WKT of Norwalk. Welcome to new members Richard Whited KG6JKJ of Torrance and Dan Dankert of Tustin N6PEQ and welcome back to George Tillitson K6MBL long time member. 32 people present.

### **Scheduling.**

2 June Noise Figure Measurement Clinic. Bring your preamps and transverters to get their NF measured. 24GHz and below. Power Measurement available as well up to 78GHz. Call for special power levels and frequencies above 100mw.

11-13 June ARRL June VHF QSO Party

25-26 June ARRL Field Day

7 July - 76GHz equipment progress Kerry Banke K6IZW. We have had some exciting developments. "Banke Labs" has been hard at work modifying some surplus equipment.

4 August Contest preparation and places. Find out where people are going during the 10ghz and up contest, get information on locations and maybe form a team.

6-7 August ARRL UHF Contest

20-21 August ARRL 10 GHz and Up contest

1 September Contest prep, Owens Valley project update and prep, and Microwave Update rep.

10-12 September ARRL September VHF QSO Party

17-18 September ARRL 10 GHz and Up contest

6 October- Microwave Update preparations.

3 November- Microwave Company rep on latest microwave developments we will have someone in from industry to talk about the latest developments. Door prizes!

1 December- History of Radio Astronomy- We hope to have a guest speaker.

YY December- Christmas Party at The Lab and Gift Exchange

5 January 2006- OVRO-SBMS Update and Report. Details of the Owens Valley Radio Observatory project with pictures and sound.

2 February 2006 - 1296Mhz High Power Amplifiers. Members will share their projects and results. Want to build an amp? Join us for a presentation by those who have had experience building them. Both solid state and Tubes.

**Activity reported** at the April SBMS: Dave, WA6CGR had a good party at the Lab, has been testing amplifiers at the lab and has lathe and mill in lab to use; Gary, K6KVC replaced coax in the station; Robert KR7O (DM07) had lots of EME reports; Dick, K6HIJ building waveguide switches; Chip, N6CA working on beacons and dish mounts; KB6WKT Orange section Emergency Coordinator; Pat, N6RMJ had a 5 and 10 GHz amplifier running; Ed, K6ODV is testing 1296 MHz amplifiers; Larry, KG6EG is rebuilding antennas; Wayne WH6WZ purchased a 5 GHz amp for \$5; Bill WB6WKT is back into machine work; Gordy WA6ZKY has 10 GHz working; Charles, K6PIP working on Jupiter GPS boards and has an excel spreadsheet on tubing for making airline transformers; Dennis WA6NIA has a Harris x band receiver from pyro-joe that works and 10 GHz transceiver with FT817. Doug K6JEY has a GS15 amp for 1296 MHz working; Bill WA6QYR has a patch antenna, DEMI 1296 MHz LNA kit and motor home TVRO mount with 6 ft dish; Chuck WA6EXV has TWT working and patch antennas working; Dick WB6DNX built up an 1152 board that works; Mel, WA6JBD working on 2.3 GHz rig and has NEC synthesizer working in the 2 GHz range; Chris, N9RIN is making his 10 GHz rig smaller.

**"Wants and Gots for sale"**

None given.

## **MICROWAVE UP DATE 2005**

Chairman: Pat Coker, N6RMJ of SBMS

Planning Committee: Pat Coker, N6RMJ of SBMS

David Peters, KI6FF of WSWSS

Dennis Kidder, WA6NIA of SBMS

Presentations: Chip Angle, N6CA

Publicity: Wayne, KH6WZ

PRIZES: Dave Glawson, WA6CGR

Registration & Finance: Dick Kolbly, K6HIJ

Family Program: Mel's wife&mdash;need name

Surplus Tour: Mel, WA6JBD

Location: Sheraton Cerritos Town Center

The SBMS web site has a MUD 2005 subsite. Dave WA6CGR has five companies donating prizes. Three or 4 vendors are on line to be in the flea market. More help will be needed at the registration table.

### Microwave Up Date 2005 Call for Papers

MUD 2005 will be held this year in the Los Angeles area on October 27 thru the 31st. As the Technical Program Chairman this year, I would like to invite interested authors to present a paper(s) for the 2005 conference.

Microwave Update is the premiere microwave amateur radio conference on the planet. Many people around the world collect the proceedings from this conference since it represents the current state of the art in microwave amateur radio. This is a great opportunity to get your ideas and papers published! You don't have to give a talk to get your paper included in the proceedings.

Electronic submissions in Word, WordPerfect or text format accepted by email or CD. Usual drawing formats also accepted with your paper(s).

Cutoff date for inclusion in the proceedings is September 5th, 2005. If you are interested in writing and/or presenting a paper for the 2005Conference, please send me an email or write to:

N6CA PO Box 35 Lomita CA 90717-0035 email: n6ca@ham-radio.com

Please contact me as soon as possible with an abstract or even a general idea. This will help the conference team with its planning activities. For more information about the Microwave UpDate 2005 see:  
<http://www.microwaveupdate.org>

73 Chip N6CA

### Beacons-

Heaps Peak DM14kf 34.14.2.4n 117.8.25.2w 8kft horz 1296.0-.2 MHz in 2304.6-.8 MHz out

Frazier Mtn DM04ms 8013 ft 10,386.3104 MHz 1.4w 14-dBi-omni horz.

Palos Verde DM03ts 1300 ft 10,368.300 MHz 1.6w 14-dBi-omni horz.

San Diego DM12mq 32.41.8n 116.56.09w 10,368.070 MHz 14 dbm 10db omni horz

Santiago DM13fr 33.42.690n 117.32.020w 5664 ft 10,368.330 MHz 0.5w 10dbi horz

ATV: 2441.5 MHz in 5.9 GHz out 10.368.4 MHz in 3460 MHz out

### From Emails:

FM: Al Ward, W5LUA

April 16, 2005 - Announcement of the first QSOs via the moon on 47 GHz.

The team of RW3BP, AD6FP, W5LUA, and VE4MA would like to announce that the first 47 GHz contacts via the moon have been completed. As you may recall, RW3BP heard the first lunar echoes on 47 GHz back in August of 2004. At that time he was heard by AD6FP, W5LUA, VE4MA and VE7CLD. Since the receipt of the first 47 GHz echoes via the moon, numerous tests between RW3BP and

AD6FP led to improvements by RW3BP allowing him to copy calls from the lower power signal of AD6FP in January of 2005.

As of April 16, 2005 the team of AD6FP, W5LUA and VE4MA have each completed a CW QSO via the moon with RW3BP.

The station at RW3BP consists of a 2.4M offset fed dish and 100 plus watts while the station at AD6FP consists of a 1.8M offset fed dish and 30 watts. At W5LUA and VE4MA 2.4M offset fed dishes and 30 watt TWT's were used. Noise figures of all stations are in the 3.5 to 4.7 dB range.

Since the Doppler shift can be as much as 100 + kHz at 47 GHz, one must continuously adjust the receive frequency to keep the station centered in the pass band. Precision frequency control was obtained by using GPS controlled, Rubidium locked, or TV sync controlled phase locked local oscillators. Various techniques were in use to keep the Doppler shifted frequency in the pass band of the receivers.

Submitted by RW3BP, AD6FP, W5LUA and VE4MA

73's Bill



Bill, WA6QYR's 6 ft motor home C band dish that is being fixed up for backyard EME with the OVRO Project.

The San Bernardino Microwave Society is a technical amateur radio club affiliated with the ARRL having a membership of over 90 amateurs from Hawaii and Alaska to the east coast and beyond. Dues are \$15 per year, which includes a badge and monthly newsletter. Your mail label indicates your call followed by when your dues are due. Dues can be sent to the treasurer as listed under the banner on the front page. If you have material you would like in the newsletter please send it to Bill WA6QYR at 247 Rebel Road Ridgecrest, CA 93555, [bburns@ridgecrest.ca.us](mailto:bburns@ridgecrest.ca.us), or phone 760-375-8566. The newsletter is generated about the 15th of the month and put into the mail at least the week prior to the meeting. This is your newsletter. SBMS Newsletter material can be copied as long as SBMS is identified as source.

San Bernardino Microwave Society newsletter

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USA

